

Title

Eye Protecting Film Providing Mask Structure

Background of the Present Invention

Field of Invention

5 The present invention relates to a mask structure, and more particularly to a mask structure which comprises an eye protecting film, so as to provide a user with good eye protection.

Description of Related Arts

10 The job of healthcare professionals is to look after patients. However, they must also look after themselves by taking good protective precautions. Protective precautions are for preventing medical professionals from the harm of viruses or bacteria present during operations and taking care of patients. Among all protective precautions, face mask is most convenient and widely used.

15 Viruses and bacteria are usually contacted through the following methods: direct contact, inhalation and droplet contact. The best recent illustration is “SARS” (Severe Acute Respiratory Syndrome). If healthcare professionals do not have good protection equipment while they take care of the patients, their life would be put at risk too.

20 The use of face masks brings enormous benefits to healthcare professionals. The different varieties of face masks and technologies thereof are publicly known and accepted, such as that disclosed in Taiwan Patent 192716. It provided a “protection lens structure of a medical face mask”, which comprises a mask, an aluminum strip, an elastic clipping device, an adjustable hanging string and a protection lens, wherein the protection lens is fixed by the clipping device on the aluminum strip located on an upper periphery
25 of the mask. The protection lens is detachable and can be applied to another mask, allowing the protection lens to be reusable.

Although the technology as disclosed in the 716' patent can be enabled and can achieve a certain degree of effectiveness, it can easily be discovered that despite the fact that the protective lens can prevent some entering the eyes, it cannot, however, prevent viruses or bacteria from entering the eyes. The reason is that the protective lens does not
5 completely match the contour of the user's face. Environmental substances, especially microscopic substances such as viruses and bacteria can easily pass through the gaps between the user's face and the protecting lens. The mask therefore cannot achieve the objective of protecting the user.

Furthermore, the material of the protective lens is hard and therefore cannot be
10 suitable for users with any facial contours. Users will also feel discomfort when using the mask as the protective lens cannot be adjusted due to the hardness of the material.

Such problems and flaws of existing face mask products should be eliminated. As a result, a better face mask should be provided.

Summary of the Present Invention

15 A main object of the present invention is to provide a mask structure, which comprises a mask body, a pair of ear hanging straps and an eye protecting film. The pair of ear hanging straps is provided on two opposite sides of the mask body respectively such that the user can hang the mask structure on his ears and as a result, the mask body covers the user's mouth and nose area.

20 The eye protecting film comprises polypropylene, which has the property of being flexible and twistable. The eye protecting film further has an adhesive portion on its periphery, such that when in use, the eye protecting film can produce a close adhesion effect to the user's face according to the contours of the user. As a result, the eye protecting film of the mask structure is suitable for any user's facial contour.

25 Users will find it more comfortable as the eye protecting film is made of a soft material with elasticity. The mask structure will not cause irritation to users even when it has been worn for a long period of time.

Furthermore, existing technology of eye protection in face masks does not have effective preventive means for foreign objects such as viruses and bacteria. In the present invention, however, the eye protecting film of the mask structure makes use of the sealing effect of the adhesive portion, to form a close adhesion effect with the contour of the user's face. The present invention can therefore effectively prevent foreign objects or viruses or bacteria from entering the eyes of the user.

Accordingly, in order to accomplish the above objects, the present invention provides an eye protection film providing mask structure having a mask body and a stabling strap securing the mask body on a user in a secured position, wherein the mask structure comprises:

an eye protection film provided on a mask body upper periphery of the mask body; and

an adhesive band having a user adhesion side provided on a film periphery of the eye protection film, wherein when the mask structure is in the secured position, the mask body covers a mouth and nose area of the user and the adhesive band adheres the eye protection film closely to an upper facial area of the user, so as to seal foreign objects, viruses or bacteria from the user.

These and other objectives, features, and advantages of the present invention will become apparent from the following detailed description, the accompanying drawings, and the appended claims.

Brief Description of the Drawings

Fig. 1 is a perspective view of the mask structure and accessories according to a preferred embodiment of the present invention.

Fig. 2 is a sectional view of the mask structure and accessories according to the above
5 preferred embodiment of the present invention.

Fig. 3 is a perspective view of the mask structure and accessories when in use according to the above preferred embodiment of the present invention.

Detailed Description of the Preferred Embodiment

According to the disclosure of the present invention, referring to Fig. 1 and Fig. 2, the main objective of the present invention is to provide a user with a mask structure with a more comfortable manner of wearing, as well as providing a better eye protection means.

The mask structure comprises an eye protection film 10, a mask body 20 and a pair of ear hanging straps 30. The pair of ear hanging straps 30 is provided on two opposite sides of the mask body respectively such that the user can hang the mask structure on his ears and as a result, the mask body covers the user's mouth and nose area.

There are many embodiments of the mask body 20 and the ear hanging straps 30, such as making the mask body 20 three-dimensional, and incorporate it with a nose adjusting piece 21 for clipping on the nose of a user to prevent the slipping of the mask body 20, the ear hanging straps 30 are usually made of an elastic tighten-loosen type string body. The ear hanging straps can also be the tying-up type, as those found in masks used by surgeons. Please note that the drawings have only shown the conventional tighten-loosen type string body 30.

There are many combinations between the mask body 20 and the ear hanging straps 30 available in the market. The main technological feature of the present invention is that there is an eye protecting film 10 on an upper periphery of the mask body 20.

The eye protecting film 10 comprises of polypropylene, which is a transparent, plastic and twistable material, wherein on an eye protecting film periphery, a predetermined thickness of adhesive area 11 is provided. The adhesive area 11 has a plurality of bending lines 12, as shown in Fig. 2.

Fig. 3 illustrates a user wearing the mask structure. The pair of ear hanging straps 30 hangs on the ears of the user, causing the mask body 20 to cover the user's mouth and nose area. The adhesive area 11 of the eye protecting film 10 then closely attach to an upper portion of the face of the user, according to the contour of the user. As

the adhesive area 11 has the plurality of bending lines 12, the user can freely choose specific areas of the adhesive area 11. And it is therefore applicable to users with any face contours. Also, as shown in the figure, the adhesive area 11 has a predetermined thickness, such that the eye protecting film 11 will maintain a certain distance away from the user's face, preventing direct contact with the user's eye brows or eye lashes and providing more comfort to the user.

Through the above description, the basic making and using of the mask structure having an eye protection film according to present invention should be clearly understood. It has at least the following advantages:

1. It provides a better wearing method: with reference to the existing technology of using hard protection eye piece, which causes discomfort to users after prolonged usage, the present invention comprises an eye protection film structure, wherein the eye protection film and the face is attached together through an adhesive means, wherein the adhesive area has a predetermined thickness, causing the eye protection film to maintain a certain distance away from the user's face, so as to provide a more comfortable wearing method.

2. It is suitable for users with any facial contours: eye protecting pieces with existing technology are usually fixed in sizes. If the user's face is wider, or smaller, the eye protecting pieces cannot provide satisfying protection and wearing results. The eye protecting film of the present invention is of a soft and slightly elastic material. Through providing an adhesive area, the eye protecting film can form an adhesive attachment relationship, according to the facial contour of the user, and can therefore be suitable for users with any facial contour. Also, the adhesive area has bending lines, which provides even greater wearing flexibility.

3. It provides excellent protection: even though existing technology can provide a certain degree of protection, especially against direct attacks by foreign objects such as viruses and bacteria. However, they cannot prevent such objects from invading through the gaps between the eye protecting piece and face. The eye protecting film of the present invention utilizes adhesion to attach to the user's face, so as to effectively prevent foreign objects, viruses or bacteria from invading the eyes, providing excellent protection results.

One skilled in the art will understand that the embodiment of the present invention as shown in the drawings and described above is exemplary only and is not intended to be limiting.

5 It will thus be seen that the objects of the present invention have been fully and effectively accomplished. Its embodiments have been shown and described for the purposes of illustrating the functional and structural principles of the present invention and is subject to change without departure from such principles. Therefore, this invention includes all modifications encompassed within the spirit and scope of the following claims.